

# Digital Step Attenuator

# DAT-3175-PN+

## Typical Performance Data

TEST CONDITIONS: INPUT POWER=-10dBm, Vdd=+3V, TEMPERATURE=-45degC

FREQUENCY (MHz)	STEP ATTENUATION* AT TTL CONTROL STATE (dB)						
	00000 THRU LOSS	00001 1 dB	00010 2.0 dB	00100 4.0 dB	01000 8.0 dB	10000 16.0 dB	11111 31 dB
0.5	0.83	0.99	2.09	4.10	8.10	16.22	31.34
1	0.83	1.00	2.09	4.11	8.11	16.22	31.31
5	0.82	1.01	2.10	4.11	8.12	16.22	31.34
10	0.84	1.01	2.11	4.12	8.11	16.23	31.37
50	0.88	0.99	2.09	4.11	8.10	16.22	31.30
100	0.92	0.97	2.06	4.08	8.07	16.20	31.28
150	0.90	1.02	2.12	4.12	8.13	16.23	31.37
200	0.93	1.02	2.10	4.11	8.11	16.23	31.39
250	0.96	1.02	2.11	4.12	8.11	16.23	31.42
300	1.03	1.00	2.09	4.08	8.08	16.15	31.42
350	1.07	0.98	2.06	4.06	8.05	16.17	31.25
400	1.07	1.00	2.08	4.08	8.07	16.15	31.41
450	1.13	0.98	2.07	4.06	8.04	16.11	31.23
500	1.18	0.99	2.07	4.05	8.03	16.11	31.25
550	1.23	0.98	2.06	4.03	8.02	16.08	31.14
600	1.25	0.96	2.04	4.03	8.00	16.02	31.03
650	1.33	0.96	2.03	4.00	7.97	15.99	30.90
700	1.32	0.96	2.05	4.02	7.99	15.98	30.83
750	1.34	0.96	2.04	4.00	7.97	15.98	31.01
800	1.34	0.99	2.07	4.06	8.03	16.02	30.80
900	1.30	0.99	2.11	4.07	8.05	16.01	30.88
1000	1.34	0.97	2.12	4.09	8.06	15.97	30.68
1100	1.37	0.97	2.13	4.09	8.05	15.93	30.67
1200	1.44	0.97	2.11	4.07	8.02	15.89	30.56
1300	1.59	0.96	2.05	4.00	7.93	15.79	30.42
1400	1.67	0.95	2.02	3.94	7.89	15.71	30.19
1500	1.75	0.95	2.01	3.92	7.85	15.63	30.06
1600	1.81	0.95	2.03	3.96	7.88	15.62	29.90
1700	1.80	0.95	2.10	4.01	7.94	15.62	29.85
1800	1.76	0.97	2.18	4.15	8.06	15.71	29.94
1900	1.83	0.97	2.24	4.21	8.15	15.75	29.99
2000	1.91	0.98	2.26	4.25	8.19	15.74	29.85
2100	2.12	0.97	2.22	4.18	8.11	15.65	29.74
2200	2.36	0.94	2.14	4.06	7.96	15.46	29.48
2300	2.60	0.90	2.09	3.97	7.86	15.30	29.20
2400	2.81	0.90	2.08	3.95	7.79	15.17	28.77
2500	3.04	0.86	2.06	3.90	7.72	15.00	28.34
2600	3.40	0.82	1.99	3.80	7.58	14.79	28.01
2800	4.44	0.76	1.75	3.42	7.10	14.22	27.11
3000	4.71	0.76	1.74	3.39	7.00	13.89	25.28

\* Step Attenuation above Thru Loss (TTL Logic 00000).

REV. OR  
DAT-3175-PN+  
110526  
Page 1 of 9



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS9100 CERTIFIED • RoHS compliant  
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661



The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see



# Digital Step Attenuator

# DAT-3175-PN+

## Typical Performance Data

TEST CONDITIONS: INPUT POWER=-10dBm, Vdd=+3V, TEMPERATURE=-45degC

FREQUENCY (MHz)	INPUT RETURN LOSS AT TTL CONTROL STATE						
	(dB)						
	00000 0 dB	00001 1 dB	00010 2.0 dB	00100 4.0 dB	01000 8.0 dB	10000 16.0 dB	11111 31 dB
0.5	21.05	24.80	24.19	28.51	41.31	28.50	27.03
1	21.15	24.94	24.32	28.72	42.29	28.43	27.00
5	21.22	25.04	24.44	28.85	42.78	28.34	26.94
10	21.19	25.01	24.39	28.84	42.56	28.35	26.93
50	20.88	24.50	23.97	27.96	37.65	28.78	27.37
100	20.21	23.52	22.97	26.42	33.25	30.37	28.77
150	19.96	23.19	22.56	25.81	32.22	31.08	29.45
200	19.83	22.92	22.33	25.35	31.45	32.16	30.29
250	20.29	23.50	22.79	25.98	32.64	30.93	29.34
300	20.10	23.13	22.36	25.29	30.68	30.09	28.86
350	20.12	23.24	22.28	24.93	29.82	29.61	28.64
400	19.36	22.20	21.27	23.55	27.43	29.09	28.66
450	19.06	21.79	20.85	22.98	26.76	30.22	29.91
500	18.81	21.59	20.53	22.53	26.10	30.12	30.19
550	18.85	21.66	20.47	22.43	26.10	31.26	31.52
600	19.00	21.80	20.50	22.34	25.75	30.42	30.71
650	18.79	21.40	20.12	21.85	25.11	30.16	30.89
700	18.94	21.57	20.07	21.77	24.99	29.89	30.62
750	18.41	21.02	19.47	21.00	24.00	29.01	30.21
800	18.44	21.01	19.40	20.84	23.70	29.15	30.66
900	17.69	20.04	18.45	19.72	22.23	28.02	30.28
1000	17.12	19.36	17.75	18.87	21.18	27.45	30.70
1100	17.54	19.82	18.03	19.10	21.40	28.89	32.87
1200	18.68	21.12	19.04	20.14	22.60	31.61	34.22
1300	20.24	22.90	20.57	21.76	24.48	33.84	31.47
1400	22.53	25.63	23.13	24.74	28.76	31.26	27.31
1500	25.85	29.63	27.06	29.58	40.27	27.11	24.32
1600	29.88	35.92	29.98	31.65	34.61	24.05	22.19
1700	31.34	38.46	27.19	26.51	26.26	21.65	20.48
1800	26.08	30.64	22.90	22.31	22.23	19.94	19.27
1900	21.62	25.17	19.76	19.41	19.75	18.82	18.47
2000	18.18	21.21	17.25	17.34	18.06	18.08	18.08
2100	15.96	18.67	15.63	15.94	16.91	17.58	17.76
2200	14.34	16.83	14.41	14.89	16.00	17.12	17.34
2300	12.79	15.05	13.10	13.76	15.00	16.42	16.74
2400	11.33	13.35	11.83	12.54	13.88	15.51	15.96
2500	10.14	11.93	10.70	11.47	12.86	14.62	15.22
2600	8.99	10.58	9.59	10.34	11.74	13.71	14.36
2800	7.26	8.62	7.86	8.62	10.08	12.33	13.18
3000	6.41	7.60	6.95	7.60	8.99	11.45	12.51

REV. OR  
DAT-3175-PN+  
110526  
Page 2 of 9



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS9100 CERTIFIED • RoHS compliant  
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661



The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see



# Digital Step Attenuator

# DAT-3175-PN+

## Typical Performance Data

TEST CONDITIONS: INPUT POWER=-10dBm, Vdd=+3V, TEMPERATURE=-45degC

FREQUENCY (MHz)	OUTPUT RETURN LOSS AT TTL CONTROL STATE						
	(dB)						
	00000 0 dB	00001 1 dB	00010 2.0 dB	00100 4.0 dB	01000 8.0 dB	10000 16.0 dB	11111 31 dB
0.5	21.12	22.59	31.16	51.59	35.48	38.39	24.88
1	21.28	22.70	31.40	49.20	35.13	37.88	24.77
5	21.32	22.78	31.50	49.02	35.21	37.89	24.81
10	21.27	22.74	31.34	49.23	35.16	37.94	24.84
50	20.96	22.35	30.22	42.51	35.85	38.26	25.17
100	20.35	21.65	28.40	37.50	37.18	38.59	26.20
150	20.08	21.32	27.69	36.11	37.86	38.98	26.79
200	19.96	21.17	27.29	35.49	38.48	38.67	27.18
250	20.10	21.29	27.48	34.78	36.82	36.95	26.71
300	19.86	20.96	26.71	32.54	34.67	34.88	26.91
350	19.63	20.68	26.08	31.19	33.46	33.09	27.29
400	19.11	20.10	25.01	29.71	32.47	31.62	28.14
450	18.89	19.88	24.66	29.39	32.28	31.11	28.95
500	18.81	19.78	24.61	29.33	32.65	31.28	29.64
550	18.98	19.90	24.84	29.60	32.82	31.22	29.54
600	18.95	19.83	24.68	29.29	32.39	30.86	29.42
650	18.93	19.75	24.49	28.91	31.58	30.08	29.09
700	18.69	19.43	23.97	27.96	30.23	28.89	29.14
750	18.50	19.18	23.55	27.07	29.05	27.69	29.17
800	17.99	18.62	22.73	26.11	28.04	26.57	30.16
900	17.36	17.85	21.72	24.88	26.37	24.86	32.20
1000	16.99	17.38	21.17	24.10	25.52	23.69	37.78
1100	17.41	17.74	21.75	24.70	25.78	23.77	37.31
1200	18.28	18.55	22.85	25.80	26.50	24.59	30.34
1300	19.59	19.90	24.51	26.98	27.28	25.97	26.22
1400	21.16	21.63	26.32	27.31	27.47	27.96	23.43
1500	23.40	24.21	28.11	26.88	26.69	29.96	21.32
1600	26.01	27.29	30.41	26.35	25.76	30.05	19.99
1700	27.80	29.42	32.19	25.77	24.66	27.64	19.12
1800	26.18	27.19	31.83	25.25	23.59	24.93	18.48
1900	22.98	23.57	28.92	24.66	22.77	22.95	18.10
2000	20.24	20.73	25.69	23.79	21.83	21.47	17.73
2100	17.93	18.51	22.77	22.55	20.97	20.25	17.44
2200	16.10	16.68	20.48	21.07	19.92	19.09	17.06
2300	14.28	14.93	18.28	19.40	18.88	17.96	16.76
2400	12.82	13.39	16.46	17.92	17.91	17.02	16.55
2500	11.42	12.00	14.77	16.39	16.78	16.01	16.34
2600	10.29	10.79	13.29	14.88	15.53	14.91	15.94
2800	8.78	9.20	11.42	12.97	13.96	13.49	15.67
3000	8.46	8.77	10.71	12.07	12.97	12.48	15.82

REV. OR  
DAT-3175-PN+  
110526  
Page 3 of 9



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS9100 CERTIFIED • RoHS compliant  
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661



The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see



# Digital Step Attenuator

# DAT-3175-PN+

## Typical Performance Data

TEST CONDITIONS: INPUT POWER=-10dBm, Vdd=+3V, TEMPERATURE=+25degC

FREQUENCY (MHz)	STEP ATTENUATION* AT TTL CONTROL STATE (dB)						
	00000 THRU LOSS	00001 1 dB	00010 2.0 dB	00100 4.0 dB	01000 8.0 dB	10000 16.0 dB	11111 31 dB
0.5	0.91	1.00	2.08	4.08	8.04	16.12	31.12
1	0.95	0.96	2.04	4.03	7.99	16.07	31.08
5	0.94	0.98	2.06	4.06	8.03	16.09	31.19
10	0.96	0.99	2.07	4.05	8.03	16.11	31.07
50	1.00	1.00	2.06	4.05	8.02	16.11	31.18
100	1.01	1.00	2.08	4.06	8.03	16.13	31.24
150	1.04	0.98	2.08	4.05	8.03	16.09	31.17
200	1.10	0.97	2.05	4.03	8.00	16.10	30.94
250	1.13	0.98	2.05	4.04	8.01	16.10	31.10
300	1.18	0.98	2.05	4.04	8.01	16.05	31.14
350	1.18	1.01	2.08	4.07	8.01	16.07	31.02
400	1.25	0.98	2.05	4.03	7.97	16.01	31.11
450	1.31	0.95	2.03	4.01	7.96	16.01	31.08
500	1.38	0.96	2.03	4.00	7.93	15.95	30.90
550	1.42	0.97	2.04	3.99	7.94	15.96	30.86
600	1.42	0.99	2.06	4.01	7.96	15.97	30.98
650	1.53	0.96	2.02	3.97	7.92	15.90	30.77
700	1.52	0.96	2.04	3.99	7.95	15.91	30.77
750	1.56	0.96	2.04	3.98	7.92	15.91	30.64
800	1.57	0.96	2.06	4.01	7.95	15.91	30.71
900	1.57	0.96	2.07	4.02	7.96	15.87	30.55
1000	1.59	0.96	2.08	4.04	7.97	15.85	30.59
1100	1.62	0.96	2.09	4.03	7.95	15.81	30.42
1200	1.70	0.95	2.06	3.99	7.91	15.73	30.37
1300	1.83	0.95	2.02	3.95	7.85	15.66	30.06
1400	1.91	0.96	2.00	3.93	7.84	15.61	29.96
1500	2.01	0.95	1.99	3.91	7.81	15.57	29.92
1600	2.09	0.95	2.03	3.94	7.85	15.50	29.70
1700	2.09	0.94	2.07	3.99	7.90	15.48	29.67
1800	2.05	0.94	2.14	4.07	7.96	15.48	29.73
1900	2.10	0.94	2.18	4.14	8.02	15.47	29.80
2000	2.16	0.93	2.20	4.13	8.02	15.45	29.62
2100	2.37	0.92	2.14	4.05	7.94	15.34	29.26
2200	2.59	0.91	2.10	3.99	7.84	15.19	29.36
2300	2.84	0.88	2.05	3.91	7.75	15.05	29.03
2400	3.05	0.86	2.04	3.88	7.70	14.90	28.44
2500	3.26	0.84	2.03	3.85	7.64	14.76	28.16
2600	3.64	0.81	1.97	3.73	7.49	14.61	27.93
2800	4.68	0.76	1.74	3.39	7.08	14.12	26.79
3000	4.99	0.77	1.74	3.39	7.07	13.75	25.03

\* Step Attenuation above Thru Loss (TTL Logic 00000).

REV. OR  
DAT-3175-PN+  
110526  
Page 4 of 9



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS9100 CERTIFIED • RoHS compliant  
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661



The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see



# Digital Step Attenuator

# DAT-3175-PN+

## Typical Performance Data

TEST CONDITIONS: INPUT POWER=-10dBm, Vdd=+3V, TEMPERATURE=+25degC

FREQUENCY (MHz)	INPUT RETURN LOSS AT TTL CONTROL STATE						
	(dB)						
	00000 0 dB	00001 1 dB	00010 2.0 dB	00100 4.0 dB	01000 8.0 dB	10000 16.0 dB	11111 31 dB
0.5	20.26	22.80	21.54	23.61	27.14	43.45	55.57
1	20.32	22.88	21.63	23.71	27.24	44.06	58.47
5	20.41	22.97	21.74	23.80	27.35	44.55	56.71
10	20.39	22.94	21.72	23.81	27.37	44.32	56.67
50	20.29	22.82	21.60	23.64	27.12	41.63	47.59
100	19.97	22.37	21.19	23.12	26.29	37.11	41.41
150	19.79	22.13	20.98	22.78	25.87	35.29	38.80
200	19.37	21.59	20.43	22.09	24.87	32.92	36.07
250	19.25	21.48	20.32	21.95	24.74	32.61	35.92
300	18.78	20.96	19.73	21.29	23.79	30.56	33.17
350	18.72	20.87	19.66	21.09	23.57	30.28	33.25
400	18.13	20.22	19.01	20.39	22.73	28.48	31.01
450	17.83	19.81	18.61	19.89	22.07	27.60	29.91
500	17.52	19.44	18.21	19.40	21.56	26.77	28.90
550	17.29	19.20	17.94	19.01	21.01	26.03	28.13
600	17.23	19.14	17.80	18.84	20.76	25.69	27.81
650	16.98	18.80	17.45	18.41	20.24	25.00	26.94
700	17.18	19.08	17.55	18.48	20.29	25.00	26.95
750	16.98	18.80	17.29	18.15	19.87	24.42	26.33
800	17.22	19.07	17.41	18.24	19.91	24.46	26.23
900	17.25	19.15	17.29	18.03	19.58	23.81	25.45
1000	17.53	19.35	17.34	17.96	19.37	23.36	24.76
1100	18.37	20.25	17.95	18.45	19.72	23.64	24.65
1200	19.43	21.28	18.73	19.18	20.42	24.22	24.86
1300	20.48	22.34	19.60	19.99	21.27	24.92	24.91
1400	21.82	23.65	20.95	21.47	22.87	26.22	25.24
1500	23.26	25.13	22.63	23.29	25.26	28.04	25.56
1600	24.98	27.09	24.58	25.53	28.90	29.65	25.68
1700	27.50	30.81	26.70	27.79	34.68	29.28	25.02
1800	28.01	38.11	25.65	26.29	30.12	27.10	24.07
1900	25.25	35.53	22.66	22.98	24.84	24.51	22.96
2000	20.95	25.91	19.35	19.57	21.02	22.18	21.67
2100	17.65	21.04	16.79	17.09	18.42	20.24	20.41
2200	15.16	17.85	14.79	15.19	16.49	18.62	19.21
2300	13.00	15.31	13.00	13.52	14.95	17.34	18.20
2400	11.30	13.27	11.52	12.19	13.65	16.25	17.25
2500	10.13	11.95	10.51	11.20	12.72	15.46	16.62
2600	9.08	10.76	9.54	10.25	11.77	14.53	15.84
2800	7.70	9.17	8.22	8.95	10.46	13.32	14.71
3000	7.11	8.39	7.52	8.15	9.54	12.34	13.79

REV. OR  
DAT-3175-PN+  
110526  
Page 5 of 9



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS9100 CERTIFIED • RoHS compliant  
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661



The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see



# Digital Step Attenuator

# DAT-3175-PN+

## Typical Performance Data

TEST CONDITIONS: INPUT POWER=-10dBm, Vdd=+3V, TEMPERATURE=+25degC

FREQUENCY (MHz)	OUTPUT RETURN LOSS AT TTL CONTROL STATE						
	(dB)						
	00000 0 dB	00001 1 dB	00010 2.0 dB	00100 4.0 dB	01000 8.0 dB	10000 16.0 dB	11111 31 dB
0.5	20.25	20.81	26.18	32.03	34.59	29.32	35.02
1	20.35	20.91	26.35	32.19	34.87	29.46	34.83
5	20.42	21.01	26.43	32.35	34.97	29.55	34.77
10	20.38	20.96	26.36	32.32	34.86	29.52	34.96
50	20.28	20.87	26.07	31.86	34.25	29.23	34.92
100	20.06	20.59	25.62	30.70	32.71	28.49	36.01
150	19.79	20.32	25.09	29.75	31.72	27.91	36.03
200	19.40	19.95	24.43	28.41	30.08	26.93	36.38
250	19.08	19.61	23.85	27.51	29.10	26.27	36.24
300	18.79	19.24	23.22	26.67	28.02	25.45	36.28
350	18.54	19.02	22.90	25.99	27.33	24.95	36.32
400	18.17	18.60	22.33	25.29	26.46	24.23	35.43
450	17.83	18.24	21.78	24.62	25.70	23.57	34.31
500	17.52	17.88	21.29	23.94	24.96	22.90	33.51
550	17.32	17.64	21.03	23.45	24.38	22.41	32.58
600	17.03	17.35	20.64	23.01	23.82	21.84	31.81
650	16.96	17.28	20.57	22.88	23.56	21.60	31.39
700	16.91	17.17	20.43	22.65	23.19	21.21	30.65
750	16.94	17.16	20.41	22.56	22.98	20.93	30.26
800	16.83	17.01	20.24	22.26	22.54	20.54	29.06
900	17.06	17.13	20.40	22.32	22.25	20.17	27.90
1000	17.40	17.36	20.64	22.28	22.12	19.99	26.71
1100	18.14	17.99	21.39	22.83	22.29	20.06	25.71
1200	18.83	18.59	22.03	23.25	22.60	20.36	24.86
1300	19.69	19.35	22.80	23.85	23.09	21.01	24.00
1400	20.27	20.02	23.30	24.06	23.59	21.72	23.18
1500	21.12	20.97	23.89	24.23	24.18	23.07	22.26
1600	22.28	22.31	25.14	25.01	25.27	25.50	21.59
1700	23.65	24.05	26.89	25.94	26.58	29.36	20.93
1800	24.85	25.68	30.86	27.38	28.00	37.89	20.47
1900	24.89	25.55	36.66	28.36	27.65	35.80	19.83
2000	23.11	23.54	34.85	27.99	26.15	28.35	19.25
2100	20.07	20.39	27.10	25.85	24.14	23.98	18.89
2200	17.20	17.54	22.27	23.05	22.05	21.13	18.51
2300	14.80	15.23	19.20	20.70	20.36	19.23	18.52
2400	13.01	13.46	16.90	18.66	18.91	17.69	18.42
2500	11.52	11.91	15.00	16.76	17.28	16.18	18.31
2600	10.37	10.75	13.51	15.18	15.98	14.95	17.94
2800	9.16	9.49	12.01	13.54	14.46	13.57	18.04
3000	9.12	9.31	11.51	12.78	13.51	12.57	17.61

REV. OR  
DAT-3175-PN+  
110526  
Page 6 of 9



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS9100 CERTIFIED • RoHS compliant  
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661



The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see



# Digital Step Attenuator

# DAT-3175-PN+

## Typical Performance Data

TEST CONDITIONS: INPUT POWER=-10dBm, Vdd=+3V, TEMPERATURE=+85degC

FREQUENCY (MHz)	STEP ATTENUATION* AT TTL CONTROL STATE (dB)						
	00000 THRU LOSS	00001 1 dB	00010 2.0 dB	00100 4.0 dB	01000 8.0 dB	10000 16.0 dB	11111 31 dB
0.5	1.04	0.99	2.06	4.03	7.97	16.02	30.94
1	1.06	0.97	2.04	4.01	7.95	16.00	30.90
5	1.07	0.97	2.04	4.00	7.94	15.98	30.96
10	1.09	0.97	2.04	4.01	7.95	16.00	30.94
50	1.11	0.98	2.06	4.02	7.96	16.02	30.90
100	1.19	0.95	2.01	3.97	7.93	15.96	30.90
150	1.22	0.95	2.02	3.98	7.92	16.00	30.81
200	1.25	0.96	2.04	3.99	7.94	15.98	30.95
250	1.30	0.97	2.04	4.00	7.93	15.97	30.79
300	1.36	0.96	2.04	3.99	7.94	15.96	30.98
350	1.41	0.95	2.01	3.97	7.90	15.90	30.86
400	1.46	0.95	2.01	3.97	7.89	15.89	30.96
450	1.51	0.95	2.02	3.97	7.90	15.89	30.72
500	1.60	0.95	2.01	3.95	7.89	15.86	30.73
550	1.67	0.95	2.00	3.93	7.86	15.86	30.57
600	1.70	0.95	2.00	3.94	7.86	15.84	30.54
650	1.80	0.95	2.00	3.94	7.86	15.85	30.52
700	1.80	0.95	2.01	3.95	7.87	15.84	30.63
750	1.85	0.95	2.01	3.95	7.87	15.81	30.37
800	1.86	0.95	2.03	3.97	7.89	15.77	30.53
900	1.86	0.94	2.05	3.98	7.91	15.75	30.26
1000	1.88	0.95	2.07	3.99	7.91	15.70	30.41
1100	1.91	0.94	2.06	3.99	7.88	15.63	30.16
1200	1.97	0.94	2.04	3.96	7.84	15.57	30.18
1300	2.11	0.95	2.01	3.91	7.81	15.54	29.87
1400	2.23	0.95	1.99	3.89	7.80	15.52	29.90
1500	2.35	0.94	2.00	3.89	7.79	15.44	29.56
1600	2.45	0.93	2.03	3.92	7.81	15.40	29.62
1700	2.44	0.94	2.07	3.98	7.85	15.34	29.42
1800	2.38	0.94	2.15	4.06	7.91	15.38	29.50
1900	2.44	0.92	2.16	4.07	7.90	15.24	29.37
2000	2.49	0.92	2.15	4.05	7.90	15.18	29.28
2100	2.65	0.92	2.11	3.99	7.82	15.12	29.21
2200	2.85	0.90	2.06	3.92	7.75	15.01	28.91
2300	3.07	0.90	2.03	3.87	7.69	14.90	28.76
2400	3.29	0.86	2.02	3.85	7.61	14.73	28.29
2500	3.56	0.82	1.99	3.79	7.54	14.56	27.76
2600	4.00	0.80	1.93	3.69	7.41	14.43	27.77
2800	5.21	0.74	1.72	3.35	7.00	13.85	26.28
3000	5.56	0.76	1.78	3.43	7.04	13.62	24.95

\* Step Attenuation above Thru Loss (TTL Logic 00000).

REV. OR  
DAT-3175-PN+  
110526  
Page 7 of 9



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS9100 CERTIFIED • RoHS compliant  
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661



The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see





# Digital Step Attenuator

# DAT-3175-PN+

## Typical Performance Data

TEST CONDITIONS: INPUT POWER=-10dBm, Vdd=+3V, TEMPERATURE=+85degC

FREQUENCY (MHz)	INPUT RETURN LOSS AT TTL CONTROL STATE						
	(dB)						
	00000 0 dB	00001 1 dB	00010 2.0 dB	00100 4.0 dB	01000 8.0 dB	10000 16.0 dB	11111 31 dB
0.5	18.89	20.43	18.90	19.79	21.10	24.73	26.00
1	18.97	20.52	19.00	19.87	21.18	24.81	26.06
5	19.03	20.62	19.06	19.94	21.25	24.87	26.19
10	19.01	20.57	19.06	19.95	21.26	24.86	26.19
50	19.09	20.65	19.13	20.03	21.33	25.01	26.34
100	19.04	20.58	19.11	19.96	21.28	24.96	26.21
150	19.06	20.74	19.15	20.04	21.41	25.16	26.57
200	18.69	20.22	18.73	19.55	20.86	24.31	25.69
250	18.46	20.06	18.54	19.37	20.68	24.18	25.53
300	17.80	19.26	17.86	18.64	19.87	23.06	24.34
350	17.64	19.09	17.64	18.36	19.61	22.66	23.92
400	16.99	18.40	17.05	17.72	18.93	21.80	22.98
450	16.70	18.09	16.72	17.34	18.45	21.18	22.26
500	16.41	17.76	16.39	16.98	18.06	20.70	21.79
550	16.32	17.61	16.16	16.73	17.67	20.24	21.24
600	16.24	17.56	16.05	16.56	17.51	20.03	21.03
650	15.99	17.30	15.78	16.23	17.11	19.53	20.40
700	16.12	17.44	15.79	16.20	17.04	19.31	20.22
750	15.87	17.18	15.52	15.88	16.67	18.85	19.73
800	16.04	17.27	15.59	15.85	16.54	18.62	19.40
900	16.12	17.25	15.44	15.60	16.18	18.01	18.63
1000	16.60	17.63	15.72	15.75	16.18	17.77	18.20
1100	17.77	18.67	16.61	16.51	16.77	18.11	18.36
1200	19.21	19.97	17.81	17.63	17.76	18.89	18.98
1300	20.85	21.40	19.20	18.94	19.05	20.05	19.78
1400	22.71	23.33	20.90	20.72	20.94	21.94	21.34
1500	24.18	25.55	22.09	22.02	22.80	24.56	23.45
1600	24.34	26.59	22.01	21.99	23.38	27.01	25.66
1700	23.69	26.61	21.49	21.63	23.28	28.70	27.19
1800	22.43	25.38	20.83	21.03	22.95	29.18	27.91
1900	21.94	25.13	20.71	21.20	23.51	31.11	28.18
2000	21.68	25.78	20.85	21.56	24.61	36.26	28.88
2100	21.54	27.47	20.60	21.39	25.00	35.73	27.82
2200	19.54	24.84	18.63	19.25	21.74	25.93	24.35
2300	15.87	19.17	15.39	15.90	17.63	20.73	21.06
2400	12.56	14.82	12.45	12.97	14.46	17.36	18.23
2500	10.24	12.06	10.32	10.90	12.29	15.06	16.26
2600	8.48	10.05	8.77	9.35	10.69	13.36	14.66
2800	7.05	8.36	7.41	7.98	9.29	11.92	13.31
3000	7.33	8.57	7.64	8.16	9.39	11.96	13.42



# Digital Step Attenuator

# DAT-3175-PN+

## Typical Performance Data

TEST CONDITIONS: INPUT POWER=-10dBm, Vdd=+3V, TEMPERATURE=+85degC

FREQUENCY (MHz)	OUTPUT RETURN LOSS AT TTL CONTROL STATE						
	(dB)						
	00000 0 dB	00001 1 dB	00010 2.0 dB	00100 4.0 dB	01000 8.0 dB	10000 16.0 dB	11111 31 dB
0.5	18.81	18.74	22.14	24.32	24.07	21.06	30.35
1	18.90	18.84	22.27	24.50	24.23	21.16	30.59
5	18.96	18.90	22.31	24.51	24.25	21.19	30.59
10	18.93	18.89	22.29	24.50	24.22	21.18	30.58
50	18.99	18.94	22.40	24.60	24.38	21.30	30.88
100	19.02	18.99	22.48	24.72	24.53	21.37	31.00
150	19.05	19.02	22.47	24.79	24.62	21.49	31.46
200	18.59	18.60	21.90	23.99	23.87	21.10	29.95
250	18.24	18.24	21.41	23.38	23.35	20.69	29.00
300	17.65	17.69	20.62	22.43	22.42	20.01	27.36
350	17.35	17.38	20.19	21.94	21.90	19.58	26.58
400	16.93	16.98	19.66	21.30	21.25	19.06	25.60
450	16.65	16.70	19.36	20.88	20.84	18.68	24.97
500	16.40	16.46	19.00	20.50	20.44	18.35	24.33
550	16.30	16.31	18.88	20.22	20.11	18.04	23.92
600	16.13	16.10	18.65	19.98	19.76	17.73	23.28
650	16.13	16.07	18.62	19.84	19.53	17.48	22.95
700	16.09	15.97	18.49	19.62	19.22	17.16	22.41
750	16.08	15.93	18.42	19.45	18.94	16.94	22.01
800	15.93	15.75	18.17	19.02	18.47	16.52	21.18
900	16.16	15.78	18.14	18.80	17.99	16.04	20.22
1000	16.53	16.05	18.22	18.65	17.72	15.77	19.40
1100	17.44	16.73	18.79	18.96	17.85	15.98	19.09
1200	18.26	17.54	19.44	19.40	18.36	16.53	19.10
1300	19.24	18.47	20.23	20.21	19.23	17.46	19.50
1400	19.91	19.20	21.05	21.01	20.25	18.52	20.08
1500	20.45	19.89	21.92	21.90	21.37	19.65	20.66
1600	20.78	20.20	22.93	22.98	22.66	20.73	21.29
1700	20.79	20.47	23.52	23.74	23.35	21.39	21.54
1800	20.90	20.71	24.14	24.29	24.08	22.46	21.35
1900	21.75	21.60	25.00	24.47	24.54	23.94	20.44
2000	24.37	24.18	27.66	25.40	25.74	28.07	19.44
2100	26.62	26.42	32.49	26.45	26.60	39.98	18.75
2200	22.51	22.59	28.13	25.11	24.75	27.74	18.18
2300	17.63	17.79	21.96	22.20	21.78	21.42	17.98
2400	13.97	14.18	17.55	18.77	18.64	17.54	17.75
2500	11.27	11.51	14.42	15.76	16.06	14.84	17.39
2600	9.53	9.81	12.41	13.81	14.31	13.15	17.08
2800	8.40	8.62	11.06	12.34	13.00	11.95	17.47
3000	9.29	9.43	11.68	12.70	13.13	12.04	17.38

REV. OR  
DAT-3175-PN+  
110526  
Page 9 of 9



IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS9100 CERTIFIED • RoHS compliant  
P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661



The Design Engineers Search Engine finds the model you need, Instantly • For detailed performance specs & shopping online see

